**Oil Spill Education Workshop**

McKinley Library (Arlington, Va) - 7/14

Ages: K-5th grade- Attendance: ~12 children

Summary:

We started by talking about who had been to the beach this summer and the different kind of animals and aquatic life you find at the beach. I used the ‘Layers of Life’ hand out from the nat geo website that shows an entire coastal ecosystem. I supplemented this with my own pictures I found of animals being cleaned after an oil spill.

Then we talked about what allows birds to fly when they are wet, and what they thought would happen to birds when their feathers are covered in oil.

For the hands on portion we poured the oil into the water tray and then dipped the feathers in, and then we cleaned them with soap in the bucket.

The activity was really engaging and they liked it a lot. I was surprised how much they already knew, and how many questions they asked. One girl even expressed an interest in growing up to do this and asked if she could interview me.

Future changes/Reflection: If I were to do this again I would incorporate a story book about an animal in an oil spill. The colored feathers were a big hit, so I think coloring the oil would be fun and a better visual representation.

Overview of activities:

**Source: http://education.nationalgeographic.com/education/activity/birds-feathers-and-oil/?ar\_a=1**

**1. Build background about the Gulf of Mexico oil spill.**

Point out the Gulf of Mexico on a globe or wall map of the world. Download and display the Layers of Life diagram from the October 2010 issue of National Geographic magazine. Explain to students that the Gulf of Mexico is home to many species of plants and animals. Tell students that in April of 2010, there was an oil spill in the Gulf of Mexico. Ask students what they have heard, if anything, about the spill and its impacts on wildlife in the Gulf. Point out the location of the spill on the same map. Tell students that many of the animals in the diagram were covered in oil and that people had to help them get clean.

**2. Have students explore feathers.**

Hand each student a feather. Ask: What does the feather feel like? Ask students to imagine they are birds—like the ones in the diagram—fishing for food in the ocean.Have them imagine diving for food like a brown pelican or walking around on the seaweed like a brown petrel. Ask:Do your feathers get wet? Have students dip their whole feather in water. Ask: What does the feather feel like now? Can birds fly with wet feathers?Explainto students that most shore birds have special waterproofing oils in their feathers that let them fly when their feathers get wet.

 **3. Dip feathers in oil to simulate the oil spill.**

Next, have students dip their feathers in vegetable oil. Ask: What does the feather feel like now?Can birds fly with oiled feathers? Explain to students that, when birds have oil on their wings, the wings get too heavy and the birds can’t fly.

**4. Use soap to simulate cleaning the birds.**

Have students wash their feathers with dishwashing soap. Emphasize that this is how scientists and volunteers actually clean oiled birds. When students’ feathers are clean, ask: What does the feather feel like now? Does the feather feel the same as it did before it was oiled or washed? Explain to students that the soap removed the bad oil and the natural waterproofing oils from the feather. Birds can fly after they have been washed, but they have a hard time flying after they get wet. When coated in oil from a spill, birds also have a hard time keeping warm, since their feathers are stuck to their bodies. Rescue workers wash, thoroughly dry, and warm birds before they are released back into the environment.